

AMENDMENTS TO THE CLAIMS

1 1. (currently amended): An external fixation device for the fixation of a proximal
2 fracture of an ulna within a patient, wherein said external fixation device includes:
3 a frame including an elongated distal portion, having an inner surface
4 facing upward, and a proximal portion extending rearward and upward from said
5 distal portion, having an inner surface facing upward and forward;
6 a plurality of shaft attachment pins for attachment within a shaft portion of
7 said fractured bone;
8 a plurality of shaft attachment pin clamps extending along said elongated
9 distal portion, wherein said shaft attachment pin clamps ~~hold~~ clamp said shaft
10 attachment pins within said elongated distal portion to extend upward from said
11 elongated distal portion;
12 a plurality of fragment attachment pins for attachment within fragments of
13 said fractured bone;
14 a plurality of fragment attachment pin clamps extending along said
15 proximal portion, wherein said fragment attachment pin clamps ~~hold~~ clamp said
16 fragment attachment pins within said proximal portion to extend upward from said
17 proximal portion;
18 a medullar pin for attachment within a medullar channel of said fractured
19 bone; and
20 a medullar pin clamp disposed within an upper end of said proximal
21 portion, wherein said medullar pin clamp ~~holds~~ clamps said medullar pin within
22 said upper end of said proximal portion to extend above said elongated distal
23 portion.

1 2. (currently amended): ~~The external fixation device of claim 1,~~ An external
2 fixation device for the fixation of a proximal fracture of an ulna within a patient,
3 wherein said external fixation device includes:

4 a frame including an elongated distal portion having an inner surface
5 facing upward, wherein said elongated distal portion includes a plurality of shaft
6 pin attachment holes, each including an internally threaded portion and a tapered
7 portion extending from an end of said internally threaded portion to said inner
8 surface of said elongated distal portion, and a proximal portion extending
9 rearward and upward from said distal portion, having an inner surface facing
10 upward and forward, wherein said proximal portion includes a plurality of
11 fragment pin attachment holes, each including an internally threaded portion and
12 a tapered portion extending from an end of said internally threaded portion to
13 said inner surface of said proximal portion, and a medullar pin attachment hole,
14 including an internally threaded portion and a tapered portion extending from an
15 end of said internally threaded portion to said inner surface of said proximal
16 ~~portion~~ portion;

17 a plurality of shaft attachment pins for attachment within a shaft portion of
18 said fractured bone;

19 a plurality of shaft attachment pin clamps extending along said elongated
20 distal portion, wherein said shaft attachment pin clamps hold said shaft
21 attachment pins to extend upward from said elongated distal portion;

22 a plurality of fragment attachment pins for attachment within fragments of
23 said fractured bone;

24 a plurality of fragment attachment pin clamps extending along said
25 proximal portion, wherein said fragment attachment pin clamps hold said
26 fragment attachment pins to extend upward from said proximal portion;

27 a medullar pin for attachment within a medullar channel of said fractured
28 bone; and

29 a medullar pin clamp disposed within an upper end of said proximal
30 portion, wherein said medullar pin clamp holds said medullar pin to extend above
31 said elongated distal portion;

32 wherein each of said pin clamps includes an externally threaded portion
33 including longitudinally extending slots at a first end, a non-circular head at an

34 end opposite said first end, and a hole extending through said pin clamp for
35 holding a pin. and

36 wherein said first end of said threaded portion clamps a pin extending
37 through said hole within said pin clamp as said pin clamp is driven into
38 engagement with said tapered portion.

1 3. (original): The external fixation device of claim 1, wherein said shaft
2 attachment pins are held within said shaft attachment pin clamps to be disposed
3 along a line extending toward a distal end of said external fixation device.

1 4. (original): The external fixation device of claim 1, wherein said fragment
2 attachment pins are held within said fragment attachment pin clamps to be
3 disposed along a pair of spaced apart lines extending longitudinally along said
4 proximal portion.

1 5. (original): The external fixation device of claim 4, wherein said fragment
2 attachment pins are held within said fragment attachment pin clamps to extend
3 inward from said proximal portion of said frame and toward a line between said
4 spaced apart lines extending between proximal and distal ends of said external
5 fixation device.

1 6. (currently amended): ~~The external fixation device of claim 1, additionally~~
2 ~~comprising~~ An external fixation device for the fixation of a proximal fracture of an
3 ulna within a patient, wherein said external fixation device includes:

4 a frame including an elongated distal portion, having an inner surface
5 facing upward, and a proximal portion extending rearward and upward from said
6 distal portion, having an inner surface facing upward and forward;

7 a plurality of shaft attachment pins for attachment within a shaft portion of
8 said fractured bone;

9 a plurality of shaft attachment pin clamps extending along said elongated

10 distal portion, wherein said shaft attachment pin clamps hold said shaft
11 attachment pins to extend upward from said elongated distal portion;
12 _____ a plurality of fragment attachment pins for attachment within fragments of
13 said fractured bone;
14 _____ a plurality of fragment attachment pin clamps extending along said
15 proximal portion, wherein said fragment attachment pin clamps hold said
16 fragment attachment pins to extend upward from said proximal portion;
17 _____ a medullar pin for attachment within a medullar channel of said fractured
18 bone;
19 _____ a medullar pin clamp disposed within an upper end of said proximal
20 portion, wherein said medullar pin clamp holds said medullar pin to extend above
21 said elongated distal portion; and
22 _____ a plurality of removably attached spacers holding said frame spaced away
23 from said patient during installation of said pins.

1 7. (original): The external fixation device of claim 1, wherein one or more of
2 said fragment attachment pin clamps each hold a fragment pin to extend inward
3 and upward from an upstanding end of said proximal portion.

1 8. (currently amended): A method for external fixation of a proximal fracture of
2 an ulna within a patient, comprising:
3 surgically installing a medullar pin to extend through a medullar pin clamp
4 within a proximal end of an external fixation device and through proximal end of
5 said ulna into a medullar channel within said ulna;
6 surgically installing a plurality of shaft attachment pins to extend through a
7 plurality of shaft attachment pin clamps within an elongated distal portion of a
8 frame of said external fixation device into a shaft portion of said ulna, wherein
9 each of said shaft attachment pins extends upward; and
10 surgically installing a plurality of fragment attachment pins to extend
11 through a plurality of fragment attachment pin clamps within a proximal portion of

12 said external fixation device, to extend upward and inward within fragments near
13 said proximal end of said ulna,
14 wherein a surgical installation of each pin includes clamping said pin to
15 said external fixation device.

1 9. (currently amended): ~~The method of claim 8,~~ A method for external fixation
2 of a proximal fracture of an ulna within a patient, comprising:
3 surgically installing a medullar pin to extend through a medullar pin clamp
4 within a proximal end of an external fixation device and through proximal end of
5 said ulna into a medullar channel within said ulna;
6 surgically installing a plurality of shaft attachment pins to extend through a
7 plurality of shaft attachment pin clamps within an elongated distal portion of a
8 frame of said external fixation device into a shaft portion of said ulna, wherein
9 each of said shaft attachment pins extends upward; and
10 surgically installing a plurality of fragment attachment pins to extend
11 through a plurality of fragment attachment pin clamps within a proximal portion of
12 said external fixation device, to extend upward and inward within fragments near
13 said proximal end of said ulna,
14 wherein a surgical installation of each pin includes rotating a clamping
15 screw forming a pin clamp having said pin extending through a hole within said
16 clamping screw to drive segments of a slotted end of said clamping screw
17 together to hold said pin as said slotted end of said clamping screw is driven into
18 engagement with a tapered hole within said frame.

1 10. (original): The method of claim 8, wherein said shaft attachment pins are
2 held by said shaft attachment pin clamps to be disposed along a line extending
3 between proximal and distal ends of said external fixation device.

1 11. (original): The method of claim 8, wherein said fragment attachment pins
2 are held within said fragment attachment pin clamps to be disposed along a pair
3 of spaced apart lines extending longitudinally along said proximal portion.

1 12. (original): The method of claim 11, wherein said fragment attachment pins
2 are held within said fragment attachment pin clamps to extend into said
3 fragments and toward a line between said spaced apart lines extending
4 longitudinally along said proximal portion.

1 13. (currently amended): ~~The method of claim 8, additionally comprising A~~
2 method for external fixation of a proximal fracture of an ulna within a patient,
3 comprising:

4 surgically installing a medullar pin to extend through a medullar pin clamp
5 within a proximal end of an external fixation device and through proximal end of
6 said ulna into a medullar channel within said ulna;

7 surgically installing a plurality of shaft attachment pins to extend through a
8 plurality of shaft attachment pin clamps within an elongated distal portion of a
9 frame of said external fixation device into a shaft portion of said ulna, wherein
10 each of said shaft attachment pins extends upward;

11 surgically installing a plurality of fragment attachment pins to extend
12 through a plurality of fragment attachment pin clamps within a proximal portion of
13 said external fixation device, to extend upward and inward within fragments near
14 said proximal end of said ulna, and

15 removing a plurality of spacers from said external fixation device, wherein
16 said spacers hold said frame spaced away from said patient.